

# 5109

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original

# 5109

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R. S. Patton, Director	
State: WASHINGTON	
DESCRIPTIVE REPORT	
<i>Hydrographic</i>	Sheet No. 5109
	Field No. 25
LOCALITY	
Pacific Coast	
<del>Olympic Peninsula</del>	
<del>Ozette Island to Watch Point.</del>	
Umatilla Reef, Cape Alava to	
Mukkaw Bay	
1930..	
CHIEF OF PARTY	
K. T. Adams	

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5109

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 25

REGISTER NO. **5109**

State WASHINGTON

General locality OLYMPIC PENINSULA Pacific Coast

Locality Umatilla Reef, Cape Alava to Mukkaw Bay  
Between Osetta Island and Watch Point

Scale 1:20,000 Date of survey Oct. 5, Oct. 13, 1930

Vessel U.S.C. & G.S.S. GUIDE

Chief of Party K. T. Adams

Surveyed by Frank G. Johnson and John C. Mathisson

Protracted by E. H. Sheridan

Soundings penciled by E. H. Sheridan

Soundings in fathoms feet-

Plane of reference M L L W

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated April 16, 1930

Remarks:

DESCRIPTIVE REPORT  
to accompany  
Sheet No. 25  
Washington Coast  
1930.

AUTHORITY: Authority for this survey was the DIRECTOR'S Instructions dated April 16, 1930.

LIMITS: Inshore from Ozette Island to Waatch Point and offshore to a junction with the ship hydrography. (Incomplete)

SURVEY METHODS: The usual launch hydrographic survey methods were used. A 65 foot chartered launch was used for the deeper lines. The GUIDE'S motorsailer ran lines inshore and close to the beach dangers. Additional dangers were located by sextant cuts to the danger.

Compass courses were used to run the launch lines and these courses were recorded in the sounding volumes.

DISCREPANCIES: As far as is known no discrepancies exist on the sheet, other than it being incomplete. The seasons work was closed before the sheet could be completed.

DANGERS: A sunken rock covered 14 feet was investigated by a party of the GUIDE in Latitude  $48^{\circ} - 11'$  and 277 m, Longitude  $124^{\circ} - 46'$  and 770 m. This rock constitutes a danger because fishing boats, coasting, usually go between Umatilla Reef and the Bodeltch Islets. in fine weather. This is probably a very sharp pinnacle and less water might exist. This rock is plotted on Sheet 43, 1930 and transferred to this sheet. (See Vol 2, p 41, Vol. 3, p 65 of H-5111 — *known*)

A reported breaker in Latitude  $48^{\circ} - 12'$  and 73 m, Longitude  $124^{\circ} - 46'$  and 190 m, was not investigated by the party as the hydrography did not cover this area. This breaker has been seen breaking in a light swell at low tide.

*(tentatively started until definitely disproved)*

*F.M.A.  
Dec. 30, 1932*

*Oct. 1930*

At Latitude  $48^{\circ} - 13'$  and 754 m, Longitude  $124^{\circ} - 43'$  and 810 m. a 12 fathom - 1 foot sounding was recorded, (Position 13e).  
(10 fm on H. 5111)

The location of the rock, bare  $5\frac{1}{2}$  feet at M L L W, at Latitude  $48^{\circ} - 15'$  and 240 m, Longitude  $124^{\circ} - 43'$  and 538 m., was verified by the party. Spike Rock, a sharp pinnacle 35 feet high, serves as a good land mark for this rock.

A shoal of 4 fathoms - 5 feet at Latitude  $48^{\circ} - 18'$  and 148 m, Longitude  $124^{\circ} - 42'$  and 1060 m., was found after drift sounding for three-quarters of an hour. (Position 52d)

A shoal with a least depth of 7 fathoms was found at Latitude  $48^{\circ} - 19'$  and 300 m, Longitude  $124^{\circ} - 42'$  and 323 m. Drift soundings were taken over the vicinity for 20 minutes.

COMPARISON WITH PREVIOUS SURVEYS: The survey is incomplete and for that reason no accurate comparison can be made.

GEOGRAPHIC NAMES: See the Descriptive Reports for Topographic Sheets Register No. 4450 (seasons 1929 and 1930) and Sheet A-1930.

Respectfully submitted,

*John C. Mathisson*

John C. Mathisson,  
Jr. H & G Engineer,  
Steamer GUIDE.

REFER TO:  
JCM/s-011.

Approved, forwarded:

*K. T. Adams*

K. T. Adams,  
Commanding Officer,  
Steamer GUIDE.

VERIFICATION REPORT  
to accompany  
Hydrographic Sheet No. 25

This will certify that I have examined the smooth sheet and records and hereby approve same.

The work on this sheet was done late in the season when the weather was unsettled. The SEAKIST, by which most of the work was done, had to base at Neah Bay which made long runs to and from the work. The weather had become bad enough so that it was deemed inadvisable to try to complete the sheet during the remainder of the season.

From signal tree to triangulation Station Rock the work is complete, joining the ship work offshore and completed to as near the beach as was practicable.

In the vicinity of triangulation Station Umatilla and from triangulation Station Rock to triangulation Station Wat, the work makes a junction offshore with the ship work and is complete in itself to the most easterly line in each case. More work remains to be done inshore however.

Both rocks near Umatilla Reef which were mentioned in the Descriptive Report were seen breaking by various officers on the ship. The rock east of triangulation Station Umatilla was seen breaking at an extreme low tide with but a moderate sea. The rock northeast of triangulation Station Umatilla was seen breaking oftener. It is probable that less water exists over the rock just east of triangulation Station Umatilla. Both rocks will be investigated next season. *3' est.*

Upon comparison of boat, smooth and topographic sheets, two rocks are found shown on the boat sheet Latitude  $48^{\circ} - 14.6'$ , Longitude  $124^{\circ} - 42.7'$ , the topographic, smooth sheets and records show only one. Due to the notes on each of these rocks it is thought they should be considered in applying this work to the charts. These rocks will be investigated next season. *two \* shown*  
*not done*

The topography was completed only to the Point of the Arches. This necessitated locating three signals by hydrographic cuts. Next season these same signals will be located by topography.

A boat sheet has been made containing all information necessary to continue this work. This sheet contains all signals, limits etcetera, necessary so that no data from the office will be required to continue the work.

A note has been made to develop the 8 fathom sounding one mile southwest of the Bodeltch Islands.

*K. T. Adams*

K. T. Adams,  
Commanding Officer,  
Steamer GUIDE.

KTA/s

# STATISTICS:

DAY	BOAT	NO. POS.	NO. SND'GS.	STAT. MI.	VOL.
a	SEAKIST	60	221	15.3	I
b	"	66	262	16.3	I
c	"	44	138	11.1	I
d	"	91	316	20.8	I
e	"	52	151	10.5	I
f	"	32	103	7.0	I
a	MOTORSAILER	90	303	19.1	II
b	"	68	294	16.6	II
	TOTAL	503	1788	116.7	

LIST OF SIGNALS  
Ozette to Tatoosh Island  
Washington Coast

Sheet No. 25

NAME:		SHEET NO.
BAT	Topo. Signal	A 1930
BAN	Topo. Signal	A 1930
BEACH	Topo. Signal	A 1930
BIT	Topo. Signal	A 1930
BLUFF	BLUFF 1930	
CLOTH	Topo. Signal	A 1930
DUCK	DUCK 1930	
FATHER	FATHER 1930	
FLAT	Topo. Signal	Register No. 4450
FUCA	FUCA PILLAR 1930	
GREEN	Hydro. Signal	Volume 2 - Pages 26 and 27.
HAP	Topo. Signal	A 1930
HI	SLANT 1930	
HOT	Topo. Signal	A 1930
INDIAN	INDIAN 1930	
KLO	Topo. Signal	A 1930
KNIFE	KNIFE 1930	
LAR	Rock off Point Arches 1930	
LOON	LOON 1930	
MAT	Hydro. Signal	Volume 1 - Page 23
NET	Topo. Signal	A 1930
NEWT	Topo. Signal	A 1930
OZETTE	OZETTE 1930	
PIN	Hydro. Signal	Volume 1 - Pages 10 and 11.
POINT	POINT 1930	
RED	Red Roof House 1930	
SHACK	Topo. Signal	A 1930
SON	SON 1930	
SPIKE	SPIKE ROCK 1930	
STEW	Topo. Signal	A 1930
TAD	Topo. Signal	A 1930
TIM	Topo. Signal	Register No. 4450
TOOSH	Tatoosh Island L. H. <sup>1893</sup> 1930	
TREE	Topo. Signal	A 1930
UMATILLA	UMATILLA 1930	
WAT	WAT 1930	
WHITE	WHITE ROCK 1930	
WILL	Topo. Signal	A 1930





Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *5109.*

The following statistics will be submitted with the  
cartographer's report on the sheet:

Number of positions on sheet	<i>503</i>
Number of positions checked	<i>170</i>
Number of positions revised	<i>3</i>
Number of soundings recorded	<i>1788</i>
Number of soundings revised	<i>45</i>
Number of signals erroneously plotted or transferred	<i>✓</i>

Date: ... *August 20, 1931* .....

Cartographer: ... *Harold W. Murray* .....

August 19, 1931  
Section of Field Records  
Report on H-5019  
Unstilla Reef, Cape ~~Ann~~<sup>Alga</sup> to Mubshaw Bay.  
Surveyed in 1930  
Instructions dated April 16, 1930 (Guide).

Chief of Party - K. T. Adams  
Surveyed by - F. G. Johnson, J. C. Matheson  
Projected by - E. H. Sheridan  
Soundings plotted by - E. H. S.  
Verified & inked by - Harold W. Murray

1. The records conform to the requirements of the Hydrographic Manual except that:-
  - (a) Vol. #2 of the notebook was not neatly recorded.
  - (b) No leadman was recorded in Vol I on a-b-d-e & f days.
2. The plan and character of development fulfill the requirements of the Hydrographic Manual.
3. The plan and extent of development satisfy the Specific Instructions.

4. There are no sounding line crossings on this sheet.
5. The 10 x 20 fathom curves can be satisfactorily drawn. Present information is insufficient to completely develop the 5 fathom & lesser curves.
6. The field plotting was very accurate.
7. Topographic details were not neatly and accurately transferred and necessitated several changes and additional plotting of offshore rocks. Way letters were affixed to ends of lines and isolated or detached positions.
8. Junctions. The junction with H-5111 is satisfactory except that there might be more actual overlap in the vicinity of Flattery Rocks.
  - (a) A 10-fm. shoal indication of H-5111 in lat.  $48^{\circ}18'$ , long  $124^{\circ}43'$  has been verified by this survey. The development disclosed a least depth of  $4\frac{5}{8}$  fm. in this vicinity. There is no indication of this shoal on chart 6102 and a 15 fm is indicated on H-1845 (1888)

- (b) A similar shoal indication in lat.  $48^{\circ}13.4$ , long  $124^{\circ}43.5$  has been partially verified by this survey. While the actual spot may not have been developed, a least depth of 12 fm. was found 140 meters (approx.) due West. There is no indication of this shoal on the chart and a 11 fm. is indicated approximately 160 meters East on H-1845
- (c) The 11 fm shoal indication in lat  $48^{\circ}19.7$ , long  $124^{\circ}43.0$  will be developed next season. (See D. Report of H-5111)
- (d) The junction on the South will be made when that shoal is verified (H-5070).
9. No comprehensive comparison may be made with previous surveys as this survey is incomplete at present. However a shoal indication of  $8\frac{3}{4}$  fm. on H-1845 (1888) and present on chart 6102 falls within the limits of this survey and does not appear to have been developed (lat.  $49^{\circ}19.6$ , long  $124^{\circ}41.9$ ). A shoal indication, however, of 10 fm. was found approximately 280 meters northwest of this location.
10. Further surveying is required in this

area and will in all probability be done next season.

11. Remarks:-

- (a) Topographic names were inked.
- (b) all cuts to rocks were verified
- (c) The shoal with a least depth of 5 and 2½ fms. in lat  $48^{\circ}12'$ , long  $124^{\circ}46.5'$  is from H-5111 and plotted from the fix. (See Vol #2, page 41 and Vol #3, page 65 of that sheet for further information)
- (d). In lat.  $48^{\circ}15.5'$ , long  $124^{\circ}43.1'$  a rock awash was recorded in position 34 a day (green). Information relative to this rock is not considered sufficiently accurate to warrant a fixed location on this sheet. \*

12. Respectfully submitted - Harold W. Murray

\* This note in the record evidently refers to pos. 33a and not pos. 34a which would make the approx position of the rock coincide with the rock which is shown on the sheet SSW of Spike Rk, located by the topographer.  
RLJ

AND REFER TO No. 80-DRM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5109

Cape Alava to Mukkaw Bay, Coast of Washington

Surveyed in 1930

Hand lead soundings.

Instructions dated April 16, 1930 (GUIDE)  
Director's letter dated April 23, 1930.

Chief of Party, K. T. Adams.

Surveyed by F. G. Johnson, J. C. Mathison.

Protracted and soundings plotted by E. H. Sheridan.

Verified and inked by H. W. Murray.

1. The records conform to the requirements except that not enough bottom characteristics were entered in the motor sailer record.
2. The extent of the survey in the areas which have been completed, satisfy the specific instructions.
3. There are no cross lines. Adjacent lines agree fairly well.
4. Within the areas which are completed the information is sufficient for drawing the usual depth curves, except some of the shoaler curves close inshore.
5. The offshore junction with H. 5111 is satisfactory and the agreement good. A 10 fathom fathometer sounding shown on H. 5111 in lat.  $48^{\circ} 13'.4$ , long.  $124^{\circ} 43'.6$  is partly confirmed by a 12 fathom sounding on H. 5109. The position of the 10 fathom sounding is somewhat indefinite as it was taken while the ship was turning.

The work on this sheet at present does not make a junction with H. 5070 on the south, and there is no recent work on the north.

6. Comparison with previous work:

The entire area on this work falls within the limits of the survey of 1888, H. 1845. As the recent work is incomplete a detailed comparison can not be made but a few of the most critical soundings from H. 1845 will be mentioned in order that they may be examined during the coming season:

An 8 3/4 fathom sounding shown on H. 1845 in lat. 48° 19'.6, long. 124° 41'.9.

An 8 fathom rock shown on H. 1845 in lat. 48° 17'.1, long. 124° 41'.95, which is outside the present 10 fathom curve.

An 11 fathom sounding shown on H. 1845 in lat. 48° 13'.4, long. 124° 43'.4.

7. The usual amount of field plotting was fairly well done but rocks and other features outside of the high water line were not carefully and accurately transferred.
8. The character and scope of surveying will be considered when the survey is completed.
9. The following places need further investigation:

An 11 fathom sounding shown on H. 5111 in lat. 48° 19'.7, long. 124° 42'.9. ✓

~~A reported breaker, shown on our charts in lat. 48° 12'.1, long. 124° 46'.1 was seen breaking but was not investigated. As it falls in the area to be surveyed next season it will probably be located then.~~

A re-examination of the rock on which a least depth of 14 feet was found, between Umatilla Reef and Bodeltch Islets, since there is a possibility of less water. This rock was reported in letter No. 207, 1930.

There is a pronounced shoaling in lat. 48° 10'.3, long. 124° 47'.1 which should be a little further developed. ✓

A 13 fathom sounding between two 22 fathom soundings in lat. 48° 11'.3, long. 124° 47'.2 should be developed. ✓

An 8 fathom sounding in lat. 48° 10'.3, long. 124° 48'.5 should be investigated. ✓

It is noted that the old topographic survey T. 1789 shows three bare rocks in about lat. 48° 10'.8, long. 124° 43'.5 while T. 4602 shows only breakers. This discrepancy can be adjusted next season.

*to be made  
740. Rep 5146  
3' M.L.W. of H. 5146  
covered by H. 5146*

*not done*

10. Reviewed by R. L. Johnston, August 31, 1931.

Inspected by E. P. Ellis.

Approved:

A. M. Sobieralski  
Chief, Section of Field Records

F. B. Gordon  
Chief, Section of Field Work

The 8, 8 $\frac{3}{4}$  and 11 fathoms soundings from H. 1845 should  
not be charted at present. Further consideration  
should be given them when the 1931 field work  
is received. no add. work done.

E. P. Ellis



80  
16

June 11, 1931

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5109

Locality Umatilla Reef, Cape Alva to Mukkaw Bay, Washington Coast

Chief of Party: K. T. Adams in 1930

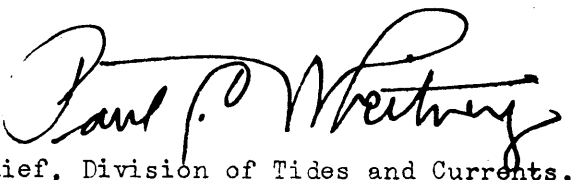
Plane of reference is mean lower low water, reading

3.8 ft. on tide staff at La Push

17.2 ft. below B. M. 4

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
- ✓ 8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

  
Chief, Division of Tides and Currents.